

## EFFECTIVENESS OF AQUATIC THERAPY IN POST-SURGERY REHABILITATION OF THE ROTATOR CUFF

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**Introduction:** rotator cuff injuries very often require surgical repair and subsequent rehabilitation. The aim of this study was to compare the effectiveness of a traditional and an aquatic post-surgery rehabilitation program of the rotator cuff in 20 adult (60±5y) patients. **Methods:** patients were randomly assigned to a traditional (TR; n=10) and to an aquatic (WR; n=10) rehabilitation group. Both programs started 15 days after the surgery, lasted 3 months (3 times-a-week), and consisted in passive mobilization followed by strengthening exercises. The only WR group underwent to an adjunctive aquatic mobilization program. Before (pre-intervention) and after (post-intervention) the programs, patients underwent the following assessments: shoulder range of motion (ROM), in both flexion and extra rotation positions; pain perception (visual analogue scale); simple shoulder test.

**Results:** pre vs. post-intervention results were compared in each group by means of a dependent-samples t-Test on each variables. An independent-samples t-Test was used to analyze pre-intervention differences between TR and WR groups; since no significant differences were found, the same test was used to analyze post-intervention differences. Pre- vs post-intervention results showed significant improvements in all variables in both groups ( $p < 0,005$ ), whereas post-intervention between groups comparisons did not reveal any significant difference: flexion 5,50 to 4,20, external rotation 3,30 to 2,60, V.A.S. 1,90 to 1,80 S.S.T. 10,25 to 9,80 ( $p$  always  $> 0,005$ )

**Discussion:** although the water-based program did not result more effective than the traditional program at the end of the three months, the aquatic rehabilitation seemed to improve shoulder ROM faster than the traditional one and to be better tolerated by the patients. It's authors' opinion that both evidences may increase the adherence to the program during the rest of the rehabilitation program